

(1) Russetting which is excessively rough on Roxbury Russet and other similar varieties.

(2) Smooth net-like russetting, when an aggregate area of more than 15 percent of the surface is covered, and the color of the russetting shows no very pronounced contrast with the background color of the apple, or lesser amounts of more conspicuous net-like russetting when the appearance is affected to a greater extent than the above amount permitted.

(3) Smooth solid russetting, when an aggregate area of more than 5 percent of the surface is covered, and the pattern and color of the russetting shows no very pronounced contrast with the background color of the apple, or lesser amounts of more conspicuous solid russetting when the appearance is affected to a greater extent than the above amount permitted.

(4) Slightly rough russetting which covers an aggregate area of more than one-half inch in diameter.<sup>3</sup>

(5) Rough russetting which covers an aggregate area of more than one-fourth inch in diameter.<sup>3</sup>

(b) Sunburn or sprayburn which has caused blistering or cracking of the skin, or when the discolored area does not blend into the normal color of the fruit unless the injury can be classed as russetting.

(c) Limb rubs which affect a total area of more than one-half inch in diameter, except that light brown limb rubs of a russet character shall be considered under the definition of damage by russetting.<sup>3</sup>

(d) Hail marks, drought spots, other similar depressions or scars:

(1) When any unhealed mark is present;

(2) When any surface indentation exceeds one-eighth inch in depth;

(3) When the skin has not been broken and the aggregate affected area exceeds one-half inch in diameter;<sup>3</sup> or,

(4) When the skin has been broken and well healed, and the aggregate affected area exceeds one-fourth inch in diameter.<sup>3</sup>

(e) Stem or calyx cracks which are not well healed, or well healed stem or

calyx cracks which exceed an aggregate length of one-fourth inch.

(f) Invisible water core existing around the core and extending to water core in the vascular bundles; or surrounding the vascular bundles when the affected areas surrounding three or more vascular bundles meet or coalesce; or existing in more than slight degree outside the circular area formed by the vascular bundles. Provided, That invisible water core shall not be scored as damage against the Fuji variety of apples under any circumstances.

(g) Disease: (1) Scab spots which affect a total area of more than one-fourth inch in diameter.<sup>3</sup>

(2) Cedar rust infection which affects a total area of more than one-fourth inch in diameter.<sup>3</sup>

(3) Sooty blotch or fly speck which is thinly scattered over more than one-tenth of the surface, or dark, heavily concentrated spots which affect an area of more than one-half inch in diameter.<sup>3</sup>

(4) Red skin spots which are thinly scattered over more than one-tenth of the surface, or dark, heavily concentrated spots which affect an area of more than one-half inch in diameter.<sup>3</sup>

(h) Insects: (1) Any healed sting or healed stings which affect a total area of more than three-sixteenths inch in diameter including any encircling discolored rings.<sup>3</sup>

(2) Worm holes.

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#### § 51.320 Serious damage.

*Serious damage* means any specific defect defined in this section; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects which seriously detracts from the appearance, or the edible or shipping quality of the apple. The following specific defects shall be considered as serious damage:

(a) The following types and amounts of russetting shall be considered as serious damage:

(1) Smooth solid russetting, when more than one-half of the surface in the aggregate is covered, including any russetting in the stem cavity or calyx

<sup>3</sup>The area refers to that of a circle of the specified diameter.

basin, or slightly rough, or excessively rough or bark-like russetting, which detracts from the appearance of the fruit to a greater extent than the amount of smooth solid russetting permitted: *Provided*, That any amount of russetting shall be permitted on Roxbury Russet and other similar varieties.

(b) Sunburn or sprayburn which seriously detracts from the appearance of the fruit.

(c) Limb rubs which affect more than one-tenth of the surface in the aggregate.

(d) Hail marks, drought spots, or scars, if they materially deform or disfigure the fruit, or if such defects affect more than one-tenth of the surface in the aggregate: *Provided*, That no hail marks which are unhealed shall be permitted and not more than an aggregate area of one-half inch shall be allowed for well healed hail marks where the skin has been broken.<sup>3</sup>

(e) Stem or calyx cracks which are not well healed, or well healed stem or calyx cracks which exceed an aggregate length of one-half inch.

(f) Visible water core which affects an area of more than one-half inch in diameter.<sup>3</sup>

(g) Disease: (1) Scab spots which affect a total area of more than three-fourths inch in diameter.<sup>3</sup>

(2) Cedar rust infection which affects a total area of more than three-fourths inch in diameter.<sup>3</sup>

(3) Sooty blotch or fly speck which affects more than one-third of the surface.

(4) Red skin spots which affect more than one-third of the surface.

(5) Bitter pit or Jonathan spot which is thinly scattered over more than one-tenth of the surface and does not materially deform or disfigure the fruit.

(h) Insects: (1) Healed stings which affect a total area of more than one-fourth inch in diameter including any encircling discolored rings.<sup>3</sup>

(2) Worm holes.

**§ 51.321 Seriously deformed.**

*Seriously deformed* means that the apple is so badly misshapen that its appearance is seriously affected.

**§ 51.322 Diameter.**

When measuring for minimum size, *diameter* means the greatest dimension of the apple measured at right angles to a line from stem to blossom end. When measuring for maximum size, “diameter” means the smallest dimension of the apple determined by passing the apple through a round opening in any position.

**U.S. CONDITION STANDARDS FOR EXPORT**

**§ 51.323 U.S. Condition Standards for Export.<sup>4</sup>**

(a) Not more than 5 percent of the apples in any lot shall be further advanced in maturity than firm ripe.

(b) Not more than 5 percent of the apples in any lot shall be damaged by storage scab.

(c) Not more than a total of 5 percent of the apples in any lot shall be affected by scald, internal breakdown, freezing injury, or decay; or damage by bitter pit, Jonathan spot, water core except that invisible water core shall not be scored as damage when these condition standards are applied to the Fuji variety of apples, or other condition factors: *Provided*, That:

(1) Not more than a total of 2 percent shall be allowed for apples affected by decay and soft scald;

(2) Not more than 2 percent shall be allowed for apples affected by internal breakdown; and,

(3) Not more than 2 percent shall be allowed for apples affected by slight scald.

(d) Container packs shall comply with packing requirements specified in § 51.311 of the United States Standards for Grades of Apples.

(e) Any lot of apples shall be considered as meeting the U.S. Condition Standards for Export if the entire lot averages within the requirements specified: *Provided*, That no package in any lot shall have more than double the percentages specified, except that for packages which contain 10 pounds or less, individual packages in any lot may have not more than three times

<sup>4</sup>These standards may be applied to domestic shipments of apples as well as export lots, and may be referred to as “U.S. Condition Standards”.